

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY TIDEWATER REGIONAL OFFICE

Molly Joseph Ward Secretary of Natural Resources 5636 Southern Boulevard, Virginia Beach, Virginia 23462 (757) 518-2000 Fax (757) 518-2009 www.deq.virginia.gov David K. Paylor Director

Maria R. Nold Regional Director

July 28, 2016

Mr. Edward G. Henifin, P.E. General Manager Hampton Roads Sanitation District Chesapeake-Elizabeth WWTP PO Box 5911 Virginia Beach, Virginia 23471-0911

Location: Virginia Beach Registration Number: 60431

Dear Mr. Henifin:

Attached is a renewed Federal Operating Permit to operate the Chesapeake-Elizabeth WWTP with sludge incineration pursuant to 9 VAC 5 Chapter 80 of the Virginia Regulations for the Control and Abatement of Air Pollution. This permit replaces your previous permit dated May 1, 2011.

The permit contains legally enforceable conditions. Failure to comply may result in a Notice of Violation and civil penalty. Please read all permit conditions carefully.

In evaluating the application and arriving at a final decision to issue this renewal, the Department deemed the application complete on September 9, 2015 and solicited written public comments by placing a newspaper advertisement in the Virginian-Pilot on Thursday, June 9, 2016. The thirty-day comment period (provided for in 9 VAC 5-80-270) expired on Monday, July 11, 2016, with <u>no</u> public comments having been received.

This approval to operate does not relieve HRSD of the responsibility to comply with all other local, state, and federal permit regulations.

Issuance of this permit is a case decision. The Regulations, at 9 VAC 5-170-200, provide that you may request a formal hearing from this case decision by filing a petition with the Board within 30 days after this permit is mailed or delivered to you. Please consult that and other relevant provisions for additional requirements for such requests:

Mr. Edward G. Henifin Hampton Roads Sanitation District Chesapeake-Elizabeth WWTP July 28, 2016 Page 2

Additionally, as provided by Rule 2A:2 of the Supreme Court of Virginia, you have 30 days from the date you actually received this permit or the date on which it was mailed to you, whichever occurred first, within which to initiate an appeal to court by filing a Notice of Appeal with:

Mr. David K. Paylor, Director
Department of Environmental Quality
PO Box 1105
Richmond, VA 23218-1105

In the event that you receive this permit by mail, three days are added to the period in which to file an appeal. Please refer to Part 2A of the Rules of the Supreme Court of Virginia for additional information including filing dates and the required content of the Notice of Appeal.

If you have any questions concerning this permit, please call Jim White at (757) 518-2180 or by email at james.white@deq.virginia.gov.

Sincerely,

Wayne H. Franklin

Regional Air Permits Manager

Wayne & Frank

WHF/JIM/60431_004&5_16_cvrltr_T5Renewal_SIGMOD_HRSD_Ches-Eliz.docx

Attachments:

Permit

Statement of Legal and Factual Basis

cc: Manager, Data Analysis (electronic file submission)

Chief, Air Enforcement Branch (3AP13), U.S. EPA, Region III (electronic file submission)

Manager/Inspector, Air Compliance



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY
TIDEWATER REGIONAL OFFICE
5636 Southern Boulevard, Virginia Beach, Virginia 23462

(757) 518-2000 Fax (757) 518-2009 www.deq.virginia.gov David K. Paylor Director

Maria R. Nold Regional Director

Federal Operating Permit Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9VAC5-80-50 through 9VAC5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:

Molly Joseph Ward

Secretary of Natural Resources

Hampton Roads Sanitation District

Facility Name:

Chesapeake-Elizabeth WWTP

Facility Location:

5332 Shore Drive

Virginia Beach, Virginia 23455

Registration Number:

60431

Permit Number:

TRO-60431

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Pages 6 through 24) State Only Enforceable Requirements (Page 25)

July 28, 2016 Effective Date July 27, 2021

Expiration Date

Maria R. Nold Regional Director <u>July 28, 2016</u>

Signature Date

Table of Contents, page 2

Permit Conditions, pages 6 - 25

Table of Contents

I. .	FACILITY INFORMATION	3
II.	EMISSION UNITS	5
III.	EMISSION UNIT APPLICABLE REQUIREMENTS - INCINERATOR REQUIREMENTS - AND I-2)	
A. B. C. D. E.	MONITORING	8 10 12
IV.	EMISSION UNIT APPLICABLE REQUIREMENTS - UST - (UNIT ID NOS. T-18 & T-22)	
A. V.		
•	GENERATORS - (UNIT ID NOS. G-1 & ISU-E-1)	14
A. B. C. D. E.	MONITORING	14 15 16
VI.	EMISSION UNIT APPLICABLE REQUIREMENTS - GASOLINE DISPENSING FACILITY (ISU-T-25)	
A.	MACT SUBPART CCCCCC	17
VII.	INSIGNIFICANT EMISSION UNITS	18
	PERMIT SHIELD & INAPPLICABLE REQUIREMENTS	
IX.	GENERAL CONDITIONS	19
X.	STATE-ONLY ENFORCEABLE REQUIREMENTS	25

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016 Page 3

I. Facility Information

Permittee
Hampton Roads Sanitation District
P. O. Box 5911
Virginia Beach, Virginia 23471

Responsible Official
Mr. Edward G. Henifin, P.E.
General Manager

Facility
Chesapeake-Elizabeth WWTP
5332 Shore Drive
Virginia Beach, Virginia 23455

Contact Person
Mr. Mark Feltner
Environmental Scientist
757-460-4254

County-Plant Identification Number: 51-810-00034

Facility Description: NAICS 221320, 562219, and 562213

The Hampton Roads Sanitation District (HRSD) is a political subdivision of the Commonwealth of Virginia and was established as a governmental instrument to provide for the public health and welfare by abating water pollution in the Hampton Roads area through the interception of wastewater outfalls and providing wastewater treatment plants. Each of the HRSD plant facilities meets the definition of a non-industrial Publicly Owned Treatment Works (POTW) as defined in 40 CFR 63, Subpart VVV. Eighty-five percent (85%) or more of their waste streams originate from residential areas and each treatment plant is rated at less than 50 million gallons per day. All of the HRSD treatment plants are interconnected for diverting wastewater flow to alternate treatment locations as the area's daily amount of generated wastewater flow varies along with the operational capabilities of each plant. Each HRSD facility has been evaluated based on its individual maximum design capacity, whereby no flows can be re-directed to any of the facilities in excess of their individual design capacities. The Chesapeake-Elizabeth Treatment Plant provides both primary and secondary municipal wastewater treatment mainly for the Virginia Beach clients in the Hampton Roads area. The Chesapeake-Elizabeth Treatment Plant is rated to treat a design maximum average dry weather flowrate of 24 million gallons per day (mgd) and sized to accommodate an instantaneous wet weather peak hour flowrate of 48 mgd. The facility's process units are grouped into four main functions: liquids management, solids handling, sludge incineration, and other combustion units.

Liquids Management - All of the unit processes that treat the received wastewater prior to discharge to the Chesapeake Bay. These unit processes include the headworks (grit removal), aerobic treatment, secondary clarification, chlorine contact basin, and sodium bisulfate injection.

Solids Handling - Unit processes that treat liquid treatment by-product streams before disposal. These unit processes include grit handling, raw and secondary scum holding tank/concentrator, and gravity thickeners. Dewatering centrifuges, biosolids screw conveyors, ash storage/disposal, interceptor grit unloading.

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016 Page 4

Sludge Incineration - Two (2) identical multi-hearth incinerators are used to dispose of dewatered solids from the solids handling sections. Each incinerator has seven hearths, a dedicated induced-draft fan and an air-pollution control train consisting of a precooler, venturi and an impingement scrubber. The incinerators use either natural gas or fuel oil to supplement combustion.

Other Combustion Units - Two (2) emergency electrical generators, an administrative building heater boiler, hot water heater and small portable space heaters. HRSD is not enrolled in the emergency load response program (ELRP) and does not participate in ISO-declared emergencies. The electrical generators are used only for the occurrence of normal power lost, maintenance, and readiness testing as is allowed for emergency engines in 40 CFR 63 (MACT), Subpart ZZZZ. The 17 hp propane-fired emergency generator was previously listed in the Title V permit as an insignificant emissions unit; however, because of its applicability to 40 CFR 63, Subpart ZZZZ, the generator is considered to be a significant emissions unit.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device (PCD) Description	Pollutant Controlled	Applicable Permit Date
		And the second s	Incinerators (S	Si-Units)	CONTRACTOR OF THE PARTY OF THE	373627478354
I-1 I-2	2a 2b	Multi-hearth SSI units (natural gas or distillate oil as backup), 1973	16 burners at 2.7 MMBtu/hr for each SSI unit. 36 dry tons/day (sludge) per SSI	Pre-cooler with Venturi scrubber followed by impingement (tray) scrubber (water only). Air Pol & Sly Inc. Model 375-Slylimpjet, 2002	PM/PM-10 (Odor)	08/03/73
	<u> </u>		Liquids Mana	gement	通常分別外	的民族的
L-1	3a 3b 3c 3d	Liquids Management, 1966	24 mgd (wastewater)	Two stage packed tower scrubber (water plus NaOCl and/or NaOH). Daniel Mechanical, Inc. Model Club 4450 (3a & 3b) 1998. DEI (3c & 3d) 2005	(Odor)	N/A (State Only)
			Emergency Electrics	il Generators	CAN STATE OF THE	
G-1	1	Plant diesel-fired engine emergency generator, 1966 40 CFR 63, Subpart ZZZZ	26.1 MMBtu/hr (3,080 kW)	N/A	N/A	N/A
ISU-E-1		Wastewater disinfection system propane-fired engine emergency generator, 2005 40 CFR 63, Subpart ZZZZ	0.043 MMBtu/hr (17 HP) 2 cylinder engine	N/A	N/A	N/A
-			Solids Hand	lling	的影響的	Parkets and
S-1	4	Solids Handling, 1973	24 mgd (wastewater)	Single stage packed tower scrubber (water plus NaOCl and/or NaOH or O ₃ /OH) Croll-Reynolds, Model 108T-6H, 1986	(Odor)	N/A (State Only)
			Gasoline Disp	ensing	2018年10年3月	NS-DECEMENTS
ISU-T-24		Gasoline UST 40 CFR 63, Subpart CCCCCC	1,000 gallons	N/A	N/A	N/A

^{*}The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

Page 6

III. EMISSION UNIT APPLICABLE REQUIREMENTS - INCINERATOR REQUIREMENTS - (I-1 and I-2)

A. Limitations

1. Incinerator Requirements - (I-1 and I-2) - Emissions - Emissions from the operation of each multiple hearth sewage sludge incinerator (SSI) unit (I-1 and I-2) shall not exceed the limits specified in the table below:

Це	3,200 grams/24-hour period	40 CFR 61.52 (b)	Method 101A, 105, or 29
Regulated Pollutant	Limitation/Standard	Applicable Requirement	Reference EPA Test Method

(9VAC5-80-110, 9VAC5-40-750, Condition 4.iii of NSR permit issued 04/04/73, and 40 CFR 61.52(b))

2. Incinerator Requirements - (I-1 and I-2) - Emissions - 9VAC5 Chapter 40, Article 55 - Emissions from the operation of each of the SSI units (I-1 and I-2) shall not exceed the limits specified by *Table 3* to Subpart MMMM of 40 CFR Part 60 as summarized in the table below:

Pollutant	Limitation		
PM	80 mg/dscm		
Hydrogen chloride	1.2 parts per million by dry volume		
Carbon monoxide	3,800 parts per million by dry volume		
Dioxins/furans (total mass basis)	5.0 nanograms per dry standard cubic meter; or		
Dioxins/furans (toxic equivalency basis) ^b	0.32 nanograms per dry standard cubic meter		
Mercury	0.28 milligrams per dry standard cubic meter		
Oxides of nitrogen	220 parts per million by dry volume		
Sulfur dioxide	26 parts per million by dry volume		
Cadmium	0.095 milligrams per dry standard cubic meter		
Lead	0.30 milligrams per dry standard cubic meter		
Fugitive emissions from ash handling	Visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) ≤ 5% of the average for the 3-one hour observation periods.		

^aAll emission limits are measured at 7 percent oxygen, dry basis at standard conditions and are for a 3-run average.
^bThe option to comply with either the dioxin/furan emission limit on a total mass basis or the dioxin/furan emission limit on a toxic equivalency basis.

These emission limits and standards apply at all times the SSI unit is operating and during periods of malfunction. The emission limits and standards apply to emissions from a bypass stack or vent while sewage sludge is in the combustion chamber (i.e. until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time). (9VAC5-80-110 and 9VAC5-40-8220B)

3. Incinerator Requirements - (I-1 and I-2) - Operating Requirements - 9VAC5 Chapter 40, Article 55 - The permittee shall meet, as applicable, the operating limits and requirements specified in 40 CFR 60.5170 and 40 CFR 60.5175. Compliance shall be demonstrated as specified in 40 CFR 60.5185, 40 CFR 60.5190, 40 CFR 60.5200, 40 CFR 60.5205, 40 CFR 60.5210, and 40 CFR 60.5215. The permittee shall establish and meet operating limits and requirements for each SSI combustion chamber, the fugitive emissions from ash handling, and the wet scrubbers as outlined below (see *Table 4* of 40 CFR 60, Subpart MMMM):

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431

July 28, 2016 Page 7

		And monitor using these minimum frequencies		
For these operating parameters	You must establish these operating limits	Data measurement	Data recording	Data averaging period for compliance.
经价值的	All sewage sludge incinerati	on (SSI) units	ff Art City	从15.0g/g/G/2012
SSI combustion chamber operating temperature (not required if afterburner temperature is monitored)	Minimum combustion chamber operating temperature or afterburner temperature	Continuous	Every 15 minutes	12-hour block.
Fugitive emissions from ash handling	Site-specific operating requirements	Not applicable	No applicable	3 - one-hour periods
24.46万万里里的城	Wet Scrubbers			"是是我们的
Pressure drop across each wet scrubber	Minimum pressure drop	Continuous	Every 15 minutes	12-hour block.
Scrubber liquid flow rate	Minimum flow rate	Continuous	Every 15 minutes	12-hour block.
Scrubber liquid pH	Minimum pH	Continuous	Every 15 minutes	3-hour block

^aThis recording time refers to the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, you must calculate hourly arithmetic averages. For all parameters, you use hourly averages to calculate the 12-hour or 3-hour block average specified in this table for demonstrating compliance. You maintain records of 1-hour averages.

(9VAC5-80-110 and 9VAC5-40-8290B)

4. Incinerator Requirements - (I-1 and I-2) - Fuel - The approved fuels for the SSI units (I-1 and I-2) are natural gas and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396 "Standard Specification for Fuel Oils" or ASTM D975 "Standard Specification for Diesel Fuel Oil". A change in the fuels may require a permit to modify and operate.

(9VAC5-80-110, 9VAC5-50-260, and Condition 4 of NSR permit issued 08/03/73)

5. Incinerator Requirements - (I-1 and I-2) - Visible Emission Limit - Visible emissions from the stack of the operating SSI unit (I-1 or I-2) shall not exceed 20 percent (20%) opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent (30%) opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times, including startup, shutdown, and malfunction events.

(9VAC5-80-110, 9VAC5-50-80, and Condition 4.ii of NSR permit issued 08/03/73)

6. Plant Operational Changes - No changes shall be made to the plant operations, after a SSI stack test or sludge test has been conducted which would potentially increases mercury emissions above the level determined by the most recent test, until the new emission level has been estimated by calculations and the results reported to the EPA and DEQ.

(9VAC5-80-110, 9VAC5-60-70, and 40 CFR 61.53(d)(4) and 61.54(e))

7. Fugitive Dust/Emissions - 9VAC5 Chapter 40, Article 55 - The permittee shall not cause or permit to be discharged into the atmosphere from any ash conveying system (including conveyor transfer points) any visible emissions of more than five percent (5%) for the average of three (3) measured 1-hour observation periods.

(9VAC5-80-110 and 9VAC5-40-8240B)

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431

> July 28, 2016 Page 8

- 8. Operator Training and Certification 9VAC5 Chapter 40, Article 55 The existing SSI units (I-1 and I-2) shall be in compliance with 9VAC5 Chapter 40, Article 55 for operator training and certification as follows:
 - a. The permittee shall comply with the operator training and qualification requirements as stated in 40 CFR 60.5130;
 - b. The permittee shall comply with the applicable dates for completing operator training as specified in 40 CFR 60.5135;
 - c. The permittee shall obtain/maintain operator qualification as specified in 40 CFR 60.5140 and 60.5145;
 - d. The permittee shall renew any lapsed operator qualifications as stated in 40 CFR 60.5150;
 - e. If all qualified operators are temporarily not accessible, the permittee shall comply as specified in 40 CFR 60.5155; and
 - f. The permittee shall maintain/review documentation regarding operator training and qualification as specified in 40 CFR 60.5160.

(9VAC5-80-110 and 9VAC5-40-8270)

B. Monitoring

- 9. Visible Emissions Evaluations The permittee shall observe the incinerator stack of the operating SSI unit (I-1/I-2) for at least one (1) minute on one (1) day during daylight normal operations within the first seven (7) operating days of each month. If visible emissions are noted, the permittee shall take immediate appropriate action to correct the cause of the opacity. If such corrective action fails to correct the problem, a visible emissions evaluation (VEE) shall be conducted for at least six (6) minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE average for the six (6) minute period exceeds ten percent (10%), the VEE shall continue for one hour from initiation. All periodic visual evaluations, visible emission evaluations and corrective actions necessary shall be recorded in a logbook. The log book shall be kept at the facility and made available for inspection by the DEQ for the most recent five (5) year period. (9VAC5-80-110)
- 10. Sewage Sludge Feed Rate The permittee shall monitor the feed rate and moisture content of the sewage sludge fed to the SSI units (I-1 and I-2), as specified in 40 CFR 60.5170 (f). The permittee shall continuously monitor the sewage sludge feed rate and calculate daily averages for all hours of operation during each 24-hour period. Records shall be kept of the daily average feed rate, as specified in 40 CFR 60.5230(f)(3)(ii). The permittee shall take at least one (1) grab sample per day of the sewage sludge fed to the SSI(s). If more than one sample is taken in a day, the permittee shall calculate the daily average for the grab samples. Records shall be kept of the daily average moisture content, as specified in 40 CFR 60.5230(f)(3)(ii). (9VAC5-80-110, 9VAC5-40-8310, and 9VAC5-40-8320)
- 11. **Monitoring Requirements 9VAC5 Chapter 40**, **Article 55 -** The permittee shall conduct, as applicable, the monitoring requirements specified by 9VAC5-40-8310 and 40 CFR 60.5220 and 60.5225. (9VAC5-80-110 and 9VAC5-40-8310)

C. Compliance, Performance Testing, and Setting Operating Limits

12. Initial Compliance Determination - Initial compliance with the emission limits and standards set forth in Conditions 1 and 2 of the permit must be demonstrated according to the requirements in 9VAC5-40-8310, 40 CFR 60.5170, 40 CFR 60.5175, 40 CFR 60.5185, 40 CFR 60.5190, 40 CFR 60.5220 (a) and (b), 40 CFR 60.5225, and Tables 2 and 3 of 40 CFR Part 60, Subpart MMMM by no later than March 21, 2016. (9VAC5-80-110 and 9VAC5-40-8310)

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016 Page 9

- 13. **Performance Testing** For each SSI unit (I-1 and I-2), performance testing shall be conducted between 11 and 13 cumulative operating months following the previous performance test conducted on the unit or within 60 calendar days after a process change. If two (2) consecutive performance tests show that emissions for a pollutant are at or below 75 percent of that emission limit specified in *Table 2 or 3* of 40 CFR Part 60, Subpart MMMM, then testing for that pollutant can be conducted every third year, but no more than 37 months after the previous performance test. (9VAC5-80-110 and 9VAC5-40-8310)
- 14. **Performance Testing 9VAC5 Chapter 40, Article 55 -** Use of a continuous emissions monitoring system (CEMS) or continuous automated sampling system (CASS) to demonstrate compliance requires following the procedures specified in 40 CFR 60.5220(b)(l) through 60.5220(b)(6). (9VAC5-80-110 and 9VAC5-40-8310)
- 15. Initial Compliance Test for Fugitive Ash The permittee shall conduct an initial Method 22 visible emissions inspection of the ash handling operations (for SSI units I-1 and I-2) and annually during each subsequent compliance test, or use the results from a test conducted within two (2) previous years if the test meets the criteria specified in 40 CFR 60.5185(a)(2). An ash handling plan must be submitted 60 calendar days prior to the initial compliance test date. (9VAC5-80-110 and 9VAC5-40-8310)
- 16. Establishing Operating Limits The permittee shall establish site-specific operating limits as specified in 40 CFR 60.5175, as applicable, during its initial performance test as required in 40 CFR 60.5185. The permittee must meet the requirements in 40 CFR 60.5210(d) to confirm the operating limits or re-establish new operating limits using operating data recorded during any performance tests or performance evaluations required in 40 CFR 60.5205. The permittee must follow the data measurement and recording frequencies and data averaging times specified in Table 4 of 40 CFR Part 60, Subpart MMMM or as established in 40 CFR 60.5190 or 60.5175, as applicable, and must follow the testing, monitoring, and calibration requirements specified in 40 CFR 60.5220 and 60.5225 or established in 40 CFR 60.5175. (9VAC5-80-110 and 9VAC5-40-8290)
- 17. Mercury Testing For Plant Changes If plant changes project mercury emissions to exceed 1,600 grams/24-hr period, a test for the level of mercury emissions from one of the SSI units (I-1 or I-2) shall be conducted within 60 calendar days after the changes have been implemented. The sludge shall be tested for mercury levels using Method 105 of 40 CFR 61, Appendix B and following the requirements of 40 CFR 60.54(c) through 60.54(d), or an incinerator stack test performed using Method 101 A of 40 CFR 61, Appendix B and following the requirements of 40 CFR 60.53(d)(4) or Method 29 of 40 CFR 60, Appendix A. The details of the test(s) are to be arranged with and approved prior to testing by the Director, Tidewater Regional Office:

 (9VAC5-80-110 and 40 CFR 61.55(a))
- 18. Continuous Compliance Determination To demonstrate continuous compliance with the emission limits and standards specified in *Table 2 and 3* of 40 CFR Part 60 Subpart MMMM, the permittee shall use the procedures specified in 40 CFR 60.5205(a) through (f), 40 CFR 60.5210, and 40 CFR 60.5225. (9VAC5-80-110 and 9VAC5-40-8300)
- 19. Additional Testing Methods If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ. (9VAC5-80-110)

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016 Page 10

D. Reports and Notifications

- 20. Increments of Progress Report The permittee shall submit notifications of final achievement of the increments of progress to the Director, Tidewater Regional Office by the date three (3) years after the effective date of the state plan approval but no later than March 21, 2016. Notifications for achieving increments of progress must be postmarked no later than ten (10) business days after the compliance date for the increment. The notification of achievement of increments of progress shall include:
 - a. Notification that the increment of progress has been achieved;
 - b. Any items required to be submitted with each increment of progress;
 - c. Signature of the owner or operator of the SSI units (I-1 and I-2).
 - d. In addition, the permittee shall meet all applicable notification requirements in 40 CFR 60.5085 through 60.5115.

(9VAC5-80-110 and 9VAC5-40-8280)

21. Initial Compliance Report - The permittee shall submit an initial compliance report as specified in 40 CFR 60.5085 within 60 calendar days after completion of the initial performance test to the Director, Tidewater Regional Office. The initial compliance report shall contain all applicable information as listed in 40 CFR 60.5235(b).

(9VAC5-80-110 and 9VAC5-40-8320)

22. Annual Compliance Reports - Twelve (12) months following the submission of the initial compliance report listed in Condition 21, an annual compliance report shall be submitted to the Director, Tidewater Regional Office which shall contain all information as listed in 40 CFR 60.5235(c)(1) through 60.5235(c)(16). Subsequent annual compliance reports must be submitted no later than 12 months following the previous annual compliance report. Reports may be submitted electronically or by paper copy if postmarked on or before the due date.

(9VAC5-80-110 and 9VAC5-40-8320)

- 23. Annual or Semi-Annual Reporting Dates Annual or semi-annual reporting dates may be changed with agreement from the Director, Tidewater Regional Office. Procedures to seek approval for changes to reporting dates are found in 40 CFR 60.19(d). (9VAC5-80-110 and 9VAC5-40-8320)
- 24. **Deviation Reports** The permittee shall submit a deviation report to the Director, Tidewater Regional Office if a deviation has occurred, according to the specifications in 40 CFR 60.5235(d). The deviation report must be submitted by August 1st of that year for data collected during the first half of the calendar year (January 1st to June 30th), and by February 1st of the following year for data collected during the second half of the calendar year (July 1st to December 31st). Reports may be submitted electronically or by paper copy if postmarked on or before the due date. A qualified operator deviation report must be submitted to the Director, Tidewater Regional Office if all qualified operators are not accessible to the SSI units (I-1 and I-2) for two (2) weeks or more. The report must be submitted within ten (10) calendar days of the deviation and be followed by a status report every four (4) weeks. (9VAC5-80-110 and 9VAC5-40-8320)
- 25. Force Majeure Reports The permittee shall notify the DEQ Tidewater Regional Office in regards to a force majeure event that is pending, occurs, or has occurred for which a claim of force majeure is intended to be made. A written report shall be submitted by the permittee which includes a description of the force majeure event; the rationale for attributing a delay in conducting a performance test beyond the regulatory deadline to a force majeure; a description of the measures taken or to be taken to minimize the delay; and a date for conducting the delayed performance test. (9VAC5-80-110 and 9VAC5-40-8320)

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431

> July 28, 2016 Page 11

- 26. Stack Test Protocol The permittee shall submit an SSI stack test protocol to the Director, Tidewater Regional Office no later than 30 calendar days prior to the proposed stack test. Notification of a rescheduled test is due at least seven (7) calendar days prior to the rescheduled test date and is to be sent to the Director, Tidewater Regional Office.

 (9VAC5-80-110)
- 27. Stack Test Date The permittee shall notify the Director, Tidewater Regional Office of proposed stack test date(s) at least 30 calendar days prior to the testing date(s). (9VAC5-80-110)
- 28. Stack Test Results One (1) copy of the stack test results report for the SSI unit (I-1/I-2) shall be sent to the Director, Tidewater Regional Office within 60 calendar days of test completion. (9VAC5-80-110)
- 29. Proposed Plant Changes 40 CFR 61, Subpart E Notification of proposed changes to the plant operations which would potentially increase mercury emissions above the level determined by the most recent test under 40 CFR 61, Subpart E, shall be sent at least 30 calendar days prior to implementing such changes along with the new calculated mercury emissions to the Director, Tidewater Regional Office and EPA. (9VAC5-80-110 and 40 CFR 61.53(d)(4) & 61.54(e))
- 30. Mercury Tests Conducted for 40 CFR 61, Subpart E Notification of proposed stack test date(s) or sludge sampling date(s) for mercury emissions shall be sent to the Director, Tidewater Regional Office and EPA at least 30 calendar days prior to the testing dates.

 (9VAC5-80-110 and 40 CFR 61.53(d) and 61.54(b))
- 31. Mercury Tests Conducted for 40 CFR 61, Subpart E The stack test determination or sludge test determination for mercury emissions shall be completed within 30 calendar days of sample collection. Each mercury emissions determination shall be dispatched within 15 calendar days of determination via registered letter to Director, Tidewater Regional Office and EPA. (9VAC5-80-110 and 40 CFR 61.53(d) and 61.54(f))
- 32. Notices to EPA for Mercury Tests 40 CFR 61, Subpart E Notices to the EPA shall be sent to the following address:

U.S. EPA, Region III
Air Protection (3AP12)
Attn: 40 CFR 61 Subpart (E) Coordinator
1650 Arch Street
Philadelphia, PA 19103-2029

(9VAC5-80-110)

- 33. Reporting Requirements 9VAC5 Chapter 40, Article 55 The permittee shall submit reports, as applicable, required by 9VAC5-40-50, 9VAC5-40-50 F and H, 40 CFR 60.7 and 40 CFR 60.5235. (9VAC5-80-110 and 9VAC5-40-8320)
- 34. Electronic Submittal Performance Tests Within 60 calendar days after the completion date of each performance test conducted to demonstrate compliance with the emission limits and standards and/or to establish operating limits, must be submitted electronically to EPA's Central Data Exchange by using the Electronic Reporting Tool at: http://www.epa.gov/ttnchiel/ert/ert_tool.html or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database. A paper copy of the performance test results shall be submitted within the same time frame to the Director, Tidewater Regional Office. (9VAC5-80-110 and 9VAC5-40-8320)

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431

July 28, 2016 Page 12

35. Notification - Continuous Monitoring System - Notification to start or stop the use of a continuous monitoring system used to demonstrate compliance with an emission unit must be provided to the Director, Tidewater Regional Office, 30 calendar days before starting or stopping use of the of the continuous monitoring system.

(9VAC5-80-110 and 9VAC5-40-8320)

E. Recordkeeping

- 36. Fuel Certification The permittee shall obtain a certification from the fuel supplier for each shipment of distillate oil/diesel fuel for use by the SSI units (I-1 and I-2). Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the distillate oil/diesel fuel was received;
 - c. The volume of distillate oil/diesel fuel delivered in the shipment;
 - d. A statement that the oil complies with the American Society for Testing and materials specifications for distillate oil/diesel fuel numbers 1 or 2; and
 - e. The sulfur content of the distillate oil/diesel fuel. (9VAC5-80-110 and Condition 4 of NSR permit issued 08/03/73)
- 37. On-Site Records The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit for the SSI units (I-1 and I-2) and to meet the requirements of 40 CFR 60.5230. The content and format of such records shall be arranged with the Director, Tidewater Regional Office. These records shall include, but are not limited to the following:
 - a. All fuel supplier certifications;
 - b. Any test for mercury in sludge or any test for mercury in stack emissions;
 - c. Incinerator visible emissions observations, VEE records and any necessary corrective action taken as required by Condition 9 of the permit;
 - d. Documentation of operator training and operator training procedures as specified in 40 CFR 60.5230(c);
 - e. Copies of the final control plans and any additional notifications associated with the permittee's Increment of Progress;
 - f. Performance test reports, initial, annual and any subsequent performance tests conducted to determine compliance with the emission limits and standards and/or to establish operating limits, as applicable;
 - g. Records of the results of initial and annual air pollution control device inspections;
 - h. Continuous monitoring data as specified in 40 CPR 60.5230(f);
 - i. Other records for any continuous monitoring system as specified in 40 CFR 60.5230(g);
 - j. Monitoring plans and performance evaluations for continuous monitoring systems as specified in 40 CFR 60.5230(k);
 - k. Equipment specifications and operation and maintenance requirements. Equipment specifications and related operation and maintenance requirements received from vendors for the SSI units, emission controls and monitoring equipment;
 - 1. Records of malfunctions and actions taken to minimize emissions;
 - m. Annual compliance reports;
 - n. Deviation reports;

Page 13

- o. Force majeure and other reports;
- p. Records of inspections, calibrations and validation checks of monitoring devices; and
- q. Other records as may be required by the DEQ Tidewater Regional Office.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years, unless otherwise noted.

(9VAC5-50-50, 9VAC5-80-110, 9VAC5-40-8320, and 40 CFR 61.53(d) and 61.54(g))

38. Recordkeeping - 9VAC5 Chapter 40, Article 55 - The permittee shall maintain records, as applicable, in 9VAC5-40-50, 9VAC5-40-50 F and H, 40 CFR 60.7 and 40 CFR 60.5230. All records required by this condition shall be kept on site and made available for inspection by the DEQ. (9VAC5-80-110 and 9VAC5-40-8320)

F. Initial and Annual Air Pollution Control Device (APCD) Inspections

- 39. Initial APCD Inspection The initial APCD inspection for the SSI units I-1 and I-2 must be conducted by the compliance date under the approved state plan, or by March 21, 2016 at the latest. For new APCDs installed after the final compliance date, the inspection must be conducted within 60 calendar days of installation. APCD repairs (if necessary) as result of initial inspection must be conducted no later than ten (10) operating days following the inspection unless written approval from the DEQ Tidewater Regional Office establishing a date whereby all necessary repairs of the affected SSI unit(s) must be completed. APCD inspections must include:
 - a. Inspection of APCD for proper operation; and
 - b. General observation of equipment to assure it is well maintained and in good operating condition. (9VAC5-80-110 and 9VAC5-40-8300)
- 40. Annual APCD Inspections An annual inspection of each APCD used to comply with the emission limits must be conducted no later than 12 months following the previous annual APCD inspection. Within ten (10) operating days following an APCD inspection, all necessary repairs must be completed unless written approval from the Director, Tidewater Regional Office establishing a date whereby all the necessary repairs of the affected SSI unit must be completed. APCD inspection must include:
 - a. Inspection of APCD for proper operation; and
 - b. General observation of equipment to assure it is well maintained and in good operating condition. (9VAC5-80-110 and 9VAC5-40-8310)

IV. EMISSION UNIT APPLICABLE REQUIREMENTS - UST - (Unit ID Nos. T-18 & T-22)

A. Recordkeeping

41. Storage Tanks - The permittee shall maintain records of fuel type stored, dimensions of tanks T-18 and T-22, and the storage capacity of the tanks T-18 and T-22. (9VAC5-80-110 and 40 CFR 60.116(b))

Page 14

V. EMISSION UNIT APPLICABLE REQUIREMENTS - EMERGENCY ELECTRICAL GENERATORS - (Unit ID Nos. G-1 & ISU-E-1)

A. Limitations

42. Emergency Electrical Generator (G-1) - Fuel - The approved fuel for the emergency electrical generator (G-1) is diesel fuel. The fuel oil shall meet the ASTM D975 specifications for S-15 fuel oil having a sulfur content per shipment of no more than 0:0015% (15 ppm). A change in the fuel may require a permit to modify and operate.

(9VAC5-80-110 and 40 CFR 63.6604(b))

- 43. Emergency Electrical Generator (ISU-E-1) Fuel The approved fuel for the emergency electrical generator (ISU-E-1) is propane fuel. The propane fuel shall meet the ASTM D1835 specification for Liquefied Petroleum (LP) Gases. A change in the fuel may require a permit to modify and operate. (9 VAC 5-80-110 and 9 VAC 5-50-260)
- 44. Emergency Electrical Generator (G-1) Visible Emission Limit Visible emissions from the emergency electrical generator (G-1) shall not exceed 20 percent (20%) opacity except during one six (6) minute period in any one hour in which visible emissions shall not exceed 60 percent (60%) opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times, including startup, shutdown, and malfunction events.

 (9VAC5-80-110 and 9VAC5-40-80)
- 45. Emergency Electrical Generators (G-1 & ISU-E-1) Emergency Power Generation The emergency electrical generators (G-1 and ISU-E-1) shall be operated in the following modes:
 - a. In situations that arise from sudden and reasonably unforeseeable events where the primary energy or power source is disrupted or disconnected due to conditions beyond the control of an owner or operator of a facility including:
 - (i) A failure of the electrical grid;
 - (ii) On-site disaster or equipment failure; or
 - (iii) Public service emergencies such as flood, fire, natural disaster, or severe weather conditions; and
 - b. For periodic maintenance checks, readiness testing, and operational training purposes. (9VAC5-80-110)

B. Monitoring.

46. Emergency Electrical Generators (G-1& ISU-E-1) - Monitoring Devices - The engines used by the emergency electrical generators (G-1 and ISU-E-1) shall each be equipped with a non-resettable hour metering device to continuously measure the engine operating hours. The non-resettable hour meter shall be observed by the permittee with a frequency of not less than once each day when the engine-generator set is operating. The permittee shall keep a record log of these observations. Each monitoring device shall be installed, maintained, and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspections and shall be in operation when the engine-generator set is operating.

(9 VAC 5-80-110, 9 VAC 5-50-260, and 40 CFR 63.6625(f))

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016 Page 15

- 47. Emergency Electrical Generator (G-1) Visible Emission Evaluations (VEE) The permittee shall observe the exhaust stack on the emergency electrical generator (G-1) for at least one (1) minute when the generator is under full plant load for visible emissions during the time period of the first routine maintenance that is performed after each 500 hours of operation for the engine-generator set(s). If visible emissions are noted, the permittee shall take appropriate action to correct the cause of the opacity. If such corrective action fails to correct the problem, a visible emissions evaluation (VEE) shall be conducted for at least six (6) minutes in accordance with Method 9 (40 CFR 60, Appendix A). If the VEE opacity average for the initial six (6) minutes exceeds five percent (5%), the VEE shall continue for one (1) hour from initiation. All periodic visual evaluations, visible emission evaluations and corrective actions necessary shall be recorded in a logbook. The logbook shall be kept at the facility and made available for inspection by the DEQ for the most recent five (5) year period. (9VAC5-80-110)
- 48. Emergency Electrical Generator (G-1) Visible Emission Evaluations (VEE) Upon request by the DEQ, the permittee shall conduct additional visible emissions evaluations using EPA Method 9 (reference 40 CFR Part 60, Appendix A) for the emergency electrical generator (G-1) to demonstrate compliance with the visible emission limits contained in this permit. The details of the tests shall be arranged with the Director, Tidewater Regional Office.

 (9VAC5-80-110

C. Recordkeeping

- 49. Emergency Electrical Generator (G-1) Fuel Certification The permittee shall obtain a certification from the fuel supplier for each shipment of diesel fuel. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier;
 - b. The date on which the diesel fuel was received;
 - c. The volume of diesel fuel delivered in the shipment:
 - d. A statement that the diesel fuel complies with the American Society for Testing and Materials ASTM D-975 specifications for S-15 diesel fuel; and
 - (e) The sulfur content of the diesel fuel. (9VAC5-80-110)
- 50. Emergency Electrical Generators (G-1& ISU-E-1) Recordkeeping The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director,, Tidewater Regional Office. These records shall include, but are not limited to:
 - a. The annual hours of operation of each emergency electrical generator, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months;
 - b. All fuel supplier certifications;
 - c. Engine information including make, model, serial number, model year, maximum engine power (bhp), and engine displacement for each emergency electrical generator set;
 - d. The manufacturer's written operating instructions or procedures developed by the owner/operator that are approved by the engine manufacturer for each emergency electrical generator set;
 - e. Records of the reasons for operation of each emergency electrical generator, including, but not limited to, the date, cause of operation, cause of the emergency, and the hours of operation based on the non-resettable hour meter;

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016

Page 16

- f. Records for the periodic visual evaluations, visible emission evaluations, and corrective actions taken (if any) to demonstrate compliance with the requirements specified in Condition 47 of this permit; and
- g. All records as required by 40 CFR 63, Subpart ZZZZ.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years. (9VAC5-80-110)

D. Testing

- 51. Emergency Electrical Generator (G-1) Testing The emergency electrical generator (G-1) shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations. (9VAC5-80-110)
- 52. Emergency Electrical Generator (G-1) Testing If testing is conducted on emergency electrical generator (G-1) in addition to any monitoring specified in this permit, the permittee shall use the appropriate method(s) in accordance with procedures approved by the DEQ. (9VAC5-80-110)

E. MACT Subpart ZZZZ Requirements

- 53. Emergency Electrical Generators (G-1& ISU-E-1) The reciprocating internal combustion engines (RICE) used by the emergency electrical generators (G-1 and ISU-E-1) that are located at an area source for hazardous air pollutants (HAPs), shall be in compliance with 40 CFR 63, Subpart ZZZZ as follows:
 - a. The permittee shall comply with all applicable provisions of MACT, Subpart ZZZZ regarding emission limitations, operating limitations, and other requirements for the stationary emergency generator ICEs. The permittee shall refer to the most current version of the Federal regulations for additional or revised requirements of the MACT;
 - b. The RICEs used by the emergency electrical generators (G-1 and ISU-E-1) shall comply with all applicable emission limitations, management practices, and other requirements in *Table 2d* of 40 CFR 63, Subpart ZZZZ, except for engine startups. During periods of startup, the engine's time spent at idle must be minimized and the startup time be minimized to a period needed for appropriate and safe engine loading, not to exceed 30 minutes, after which time the non-startup emission limitations shall apply;
 - c. For the RICEs used by the emergency electrical generator sets (G-1 and ISU-E-1), the permittee shall:
 - (i) Operate and maintain each RICE and after-treatment control device (if so equipped) according to the engine manufacturer's written instructions or develop a maintenance plan that provides for the maintenance and operation of the RICE in a manner consistent with good air pollution control practice for minimizing emissions; and
 - (ii) As an option, an oil analysis program may be utilized by the permittee in order to extend the specified oil change requirement. The oil analysis program shall be performed according to the requirements specified in 40 CFR 63.6625(i);
 - d. The permittee shall operate and maintain the stationary RICEs and after-treatment control devices (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the RICE in a manner consistent with good air pollution control practice for minimizing emissions, as specified in §63.6625(e);
 - e. The permittee shall comply with the applicable work and/or management practices listed in *Table 6* of the MACT to demonstrate compliance with the requirements of §63.6640 for each of the stationary RICEs;

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431

> July 28, 2016 Page 17

- f. The permittee must operate the emergency stationary RICEs according to the requirements in 63.6640(f)(1), §63.6640(f)(2)(i), and CFR 63.6640(f)(3)-(4). In order for an engine to be considered as an emergency stationary RICE under 40 CFR 63 Subpart ZZZZ, operations will be limited to emergency situations as specified in §63.6640(f)(1); maintenance checks and readiness testing for a limited number of hours per year as specified in §63.6640(f)(2)(i); and certain non-emergency situations for a limited number of hours per year as specified in §63.6640(f)(3)-(4). If the permittee does not operate the engine in accordance with these requirements, the engine will not be considered an emergency engine under this subpart and shall meet all requirements for a non-emergency engine;
- g. Submit all applicable reports as required by 40 CFR 63.6645 and §63.6650; and
- h. The permittee shall maintain all necessary records as required by 40 CFR 63.6656. (9VAC5-80-110 F and 40 CFR 63, Subpart ZZZZ)

VI. EMISSION UNIT APPLICABLE REQUIREMENTS - Gasoline Dispensing Facility (ISU-T-25)

A. MACT Subpart CCCCCC

- 54. Gasoline Dispensing Facility (ISU-T-24) A gasoline dispensing facility (GDF) with a monthly throughput of less than 10,000 gallons of gasoline and located at an area source for hazardous air pollutants (HAPs) shall be in compliance with 40 CFR 63, Subpart CCCCCC as specified in §63.11116, and summarized as follows:
 - a. The permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
 - (i) Minimize gasoline spills;
 - (ii) Clean up spills as expeditiously as practicable;
 - (iii) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
 - (iv) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators;
 - b. The permittee must have records available within 24 hours of a request to document gasoline throughput;
 - c. The permittee must comply with the requirements of this subpart by the applicable dates specified in 40 CFR 63.11113;
 - d. Portable gasoline containers that meet the requirements of 40 CFR 59, Subpart F, are considered acceptable for compliance with paragraph (a)(iii) of this section; and
 - e. Monthly throughput means the total volume of gasoline that is loaded into, or dispensed from, all gasoline storage tanks at each GDF during a month. Monthly throughput is calculated by summing the volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the current day, plus the total volume of gasoline loaded into, or dispensed from, all gasoline storage tanks at each GDF during the previous 364 days, and then dividing that sum by 12.

(9 VAC 5-80-110 and 40 CFR 63, Subpart CCCCCC)

Page 18

VII. INSIGNIFICANT EMISSION UNITS

55. The following emission units at the facility are identified in the application as insignificant emission units under 9VAC5-80-720:

Emission Unit No.	Emission Unit Description		Pollutant(s) Emitted (9VAC5-80-720 B)	Rated Capacity (9VAC5-80-720 C)
ISU-CB-16a	Admin. Bldg. Heating Boiler (NG)	5-80-720 C.2.a	N/A	0.25 MMBtu/hr
ISU-CB-16b	Admin. Bldg. Water Heater (NG)	5-80-720 C.2.a	N/A	0.2 MMBtu/hr
ISU-T-23	Liquids Management diesel UST	5-80-720 B.2	VOC	500 gallons
ISU-T-20	Solids Handling kerosene AST	5-80-720 B.2	VOC	275 gallons
ISU-T-22	Liquids Management diesel UST	5-80-720 B.2	VOC	20,000 gallons
ISU-T-18	Solids Handling distillate oil UST	5-80-720 B.2	VOC	20,000 gallons

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

VIII. PERMIT SHIELD & INAPPLICABLE REQUIREMENTS

56. Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
40 CFR 60 Subpart O	NSPS for Sewage Treatment Plants	SSI that charges more than 2,205 lb/day of municipal sewage sludge (dry basis)
40 CFR 61 Subpart C	NESHAPS for Beryllium	Incineration of Beryllium wastes
40 CFR 63 Subpart VVV	NESHAPS for POTWs	See Condition 57 of the permit
9VAC5 Chapter 40, Article 8	Emission Standards for Fuel Burning Equipment	Standards for PM and SO ₂ for fuel burning equipment
9VAC5 Chapter 40, Article 4	Emission Standards for General Process Operations	Standards for PM from any process unit and SO ₂ standard for combustion equipment

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law. (9VAC5-80-140)

57. MACT Subpart VVV Applicability - Should this POTW facility become a major source of HAP emissions, or become an industrial POTW facility, regardless of whether or not it is a major source of HAP emissions, the source shall become subject to the applicable requirements in 40 CFR 63, Subpart VVV - National Emission Standards for Hazardous Air Pollutants: Publicly Owned Treatment Works as specified in §63.1580 of the Regulation.

(9VAC5-80-110 F and 40 CFR 63, Subpart VVV)

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431

> July 28, 2016 Page 19

IX. GENERAL CONDITIONS

- 58. Federal Enforceability All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable, (9VAC5-80-110 N)
- 59. **Permit Expiration** This permit has a fixed term of five (5) years. The expiration date shall be the date five (5) years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9VAC5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

(9VAC5-80-80 B, C, and F, 9VAC5-80-110 D, and 9VAC5-80-170 B)

- 60. **Permit Expiration** The owner shall submit an application for renewal at least six (6) months but no earlier than eighteen (18) months prior to the date of permit expiration. (9VAC5-80-80 B, C, and F, 9VAC5-80-110 D, and 9VAC5-80-170 B)
- 61. **Permit Expiration** If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9VAC5 Chapter 80, until the Board takes final action on the application under 9VAC5-80-150.

 (9VAC5-80-80 B, C, and F, 9VAC5-80-110 D, and 9VAC5-80-170 B)
- 62. **Permit Expiration** No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9VAC5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9VAC5 Chapter 80. (9VAC5-80-80 B, C, and F, 9VAC5-80-110 D, and 9VAC5-80-170 B)
- 63. **Permit Expiration** If an applicant submits a timely and complete application under section 9VAC5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9VAC5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

(9VAC5-80-80 B, C, and F, 9VAC5-80-110 D, and 9VAC5-80-170 B)

64. **Permit Expiration** - The protection under subsections F 1 and F 5 (ii) of section 9VAC5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9VAC5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9VAC5-80-80 B, C, and F, 9VAC5-80-110 D and 9VAC5-80-170 B)

- 65. Recordkeeping and Reporting All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement. (9VAC5-80-110 F)

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016

Page 20

- 66. Recordkeeping and Reporting Records of all monitoring data and support information shall be retained for at least five (5) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit. (9VAC5-80-110 F)
- 67. Recordkeeping and Reporting The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than March 1st and September 1st of each calendar year. This report must be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:
 - a. The time period included in the report. The time periods to be addressed are January 1st to June 30th and July 1st to December 31st;
 - b. All deviations from permit requirements. For purpose of this permit, deviations include, but are not limited to:
 - (i) Exceedance of emissions limitations or operational restrictions;
 - (ii) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring or periodic monitoring which indicates an exceedance of emission limitations or operational restrictions; or,
 - (iii) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.
 - c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9VAC5-80-110 F)

- 68. Annual Compliance Certification Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1st of each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9VAC5-80-80 G, and shall include:
 - a. The time period included in the certification. The time period to be addressed is January 1st to December 31st;
 - b. The identification of each term or condition of the permit that is the basis of the certification;
 - c. The compliance status;
 - d. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance;
 - e. Consistent with subsection 9VAC5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period;
 - f. Such other facts as the permit may require to determine the compliance status of the source;
 - g. One copy of the annual compliance certification shall be submitted to EPA in electronic format only. The certification document should be sent to the following electronic mailing address:

R3_APD_Permits@epa.gov

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431

> July 28, 2016 Page 21

69. **Permit Deviation Reporting** - The permittee shall notify the Director, Tidewater Regional Office within four (4) daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one (1) hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 calendar days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition 66 of this permit.

(9VAC5-80-110 F.2 and 9VAC5-80-250)

- 70. Failure/Malfunction Reporting In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one (1) hour, the owner shall, as soon as practicable but no later than four (4) daytime business hours after the malfunction is discovered, notify the Director, Tidewater Regional Office by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 calendar days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9VAC5-40-50 C and 9VAC5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9VAC5-40-40 and 9VAC5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Tidewater Regional Office. (9VAC5-20-180 C)
- 71. Severability The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit. (9VAC5-80-110 G.1)
- 72. **Duty to Comply** The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is ground for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application. (9VAC5-80-110 G.2)
- 73. Need to Halt or Reduce Activity not a Defense It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

 (9VAC5-80-110 G.3)
- 74. **Permit Modification** A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9VAC5-80-50, 9VAC5-80-1100, 9VAC5-80-1605, or 9VAC5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9VAC5-80-190 and 9VAC5-80-260)
- 75. **Property Rights** The permit does not convey any property rights of any sort, or any exclusive privilege. (9VAC5-80-110 G.5)
- 76. **Duty to Submit Information** The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality. (9VAC5-80-110 G.6)

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016

Page 22

77. **Duty to Submit Information** - Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9VAC5-80-80 G. (9VAC5-80-110 K.1)

- 78. Duty to Pay Permit Fees The owner of any source for which a permit under 9VAC5-80-50 through 9VAC5-80-300 was issued shall pay permit fees consistent with the requirements of 9VAC5-80-310 through 9VAC5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15th of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department. (9VAC5-80-110 H and 9VAC5-80-340 C)
- 79. Fugitive Dust Emission Standards During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:
 - a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
 - b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
 - c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material.

 Adequate containment methods shall be employed during sandblasting or similar operations;
 - d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,
 - e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9VAC5-40-90 and 9VAC5-50-90)

80. Startup, Shutdown, and Malfunction - At all times, including periods of startup, shutdown, and soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9VAC5-50-20 E and 9VAC5-40-20 E)

81. Alternative Operating Scenarios - Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9VAC5 Chapter 80, Article 1.

(9VAC5-80-110 J)

- 82. Inspection and Entry Requirements The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:
 - a. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016

Page 23

- b. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
- c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
- d. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.
 (9VAC5-80-110 K.2)
- 83. Reopening For Cause The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three (3) years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9VAC5-80-80 F. The conditions for reopening a permit are as follows:
 - a. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
 - b. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
 - c. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9VAC5-80-110 D. (9VAC5-80-110 L)
- 84. **Permit Availability** Within five (5) days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request. (9VAC5-80-150 E)
- 85. Transfer of Permits No person shall transfer a permit from one location to another, unless authorized under 9VAC5-80-130, or from one piece of equipment to another. (9VAC5-80-160)
- 86. Transfer of Permits In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 calendar days of the transfer and shall comply with the requirements of 9VAC5-80-200.

 (9VAC5-80-160)
- 87. Transfer of Permits In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 calendar days of the name change and shall comply with the requirements of 9VAC5-80-200.

(9VAC5-80-160)

HRSD – Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016 Page 24

88. Permit Revocation or Termination for Cause - A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9VAC5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any grounds for revocation or termination or for any other violations of these regulations.

(9VAC5-80-190 C and 9VAC5-80-260)

- 89. Duty to Supplement or Correct Application Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit. (9VAC5-80-80 E)
- 90. Stratospheric Ozone Protection If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

- 91. Asbestos Requirements The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150). (9VAC5-60-70 and 9VAC5-80-110 A.1)
- 92. Accidental Release Prevention If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

 (40 CFR Part 68)
- 93. Changes to Permits for Emissions Trading No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (9VAC5-80-110 I)
- 94. Emissions Trading Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:
 - a. All terms and conditions required under 9VAC5-80-110, except subsection N, shall be included to determine compliance.
 - b. The permit shield described in 9VAC5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
 - c. The owner shall meet all applicable requirements including the requirements of 9VAC5-80-50 through 9VAC5-80-300.

(9VAC5-80-110 I)

HRSD - Chesapeake - Elizabeth Permit Number: TRO-60431 July 28, 2016

Page 25

X. STATE-ONLY ENFORCEABLE REQUIREMENTS

95. The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9VAC5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

Odor - 9VAC5-40-140 and 9VAC5-50-140

State toxics rule - 9VAC5-60-220 and 9VAC5-60-320

Existing Source Standards for Hydrogen Sulfide – 9VAC5-40-290

(9VAC5-80-110 N and 9VAC5-80-300)